BITS,BYTES&PIXELS

LIMA 99/4A USERS GROUP
VOLUME 3 NO 3 MARCH 1987

THE MYARC 9640 COMPUTER MAY APPEAR "ANY DAY NOW"

This is what MYARC has been saying since Nov. 1985 concerning the appearence of their new TI 99/4A compatable computer on a card for the PE box. Recently MYARC has announced (Feb. 87 issue of COMPUTER SHOPPER) that "they began shipping their Geneve 9640 computer to dealers on February 2, 1987". Well folks, as of the date this article is written (Feb 20, 1987) it hasn't yet happened. The 9640 is still not in production.

On February 14 I attended a meeting of the Fort's User Group of Fort Wayne IN where a production 9640 was supposed to be available for inspection. What they had was a pre-production prototype, and I was told that in spite of the above mentioned announcement, production had not started. On Thursday Feb 19 I placed a call to Tenex, a dealer who has listed the 9640 in their catalog since well before Christmas. I was told that no computers had been received and that no money or reservations were being accepted. They did give me some information about what they would sell when they got it. What follows is based on what I saw at the Fort's User Group meeting, and what Tenex told me over the phone.

The computer on display at the Fort's User Group was in a clamshell case and fit nicely into a PE box slot. In the back were jacks for video output, joystick, mouse, and an IBM style keyboard. Unfortunately, in the preproduction prototype available the Fort's User Group could get almost nothing to work. Part of the problem was that an analog RGB monitor was needed, and none was available. Analog RGB monitors are used with Amiga computers and not with IBM computers. Ads in Micropendium state that a composite video output is available, but the only thing the Fort's group could obtain was a black and white image of Car Wars and the TI Writer editor in 80 columns with their composite monitor. Both of these programs crashed every now and then. The Basic 3 disk would not load, nor would any of the fancy color demos MYARC sent. All disks that came with the computer were in double density format and required the MYARC disk controler to load them, those that loaded. Micrpendium ads state that the 9640 is compatable with all disk controlers including the TI controler. However, if the bundled software is going to be delivered in double density format, it will be hard to use with a TI controler.

To give MYARC credit where credit is due, they did spend $40+ sending their equipment air express to the Fort's User Group at no expense to that group, and the Fort's group did not have the required monitor even though they were told they needed one. That still doesn't completely explain why it was so difficult to get most of the software to run properly or at all. MYARC is a very small company with less than 12 employees, and they are trying to do great things. It took TI 3 years to get extended basic to work properly, and MYARC doesn't have nearly the resources that TI did. Lets hope we don't have to wait another 3 years to see the debut of this potentially significant computer.

When the 9640 appears, and if everything works correctly, you may be able to put away your 99/4A console for good and just use the PE box. Tenex says that a software program will be included that can save TI cartridges to disk for use with the 9640. Also, an advenced basic "compatable with TI Basic and Extended Basic" will be included. This is apparently an enhanced version of MYARC Extended Basic II/ which is currently almost compatable with Extended Basic. There are still some bugs in the latest issue of MYARC XBII/ according to people at the Fort's User Group. You should be able to load your current disk based TI Basic or Extended Basic programs with your current disk drive and controler into the 9640 and have them work properly using the 9640's fancy keyboard. Let's hope so.

The spokesperson at Tenex said that the 9640 will include a hard bound manual and the following software: cartridge saver, advanced BASIC, Pascal 4.21, TI-Writer in 80 columns, Multiplan in 80 columns, and a DOS that is very similar to Microsoft DOS (MS-DOS). I have seen the DOS manual, and it certainly looks similar to what I know of MS-DOS. The computer will have a 6 month parts and labor warranty and an additional 6 month parts warranty. Tenex will sell the 9640 with a "regular" IBM style keyboard for $449.95 and a version with an "enhanced" keyboard containing separate arrow keys not part of the numeric keypad for $479.95. These will be available "any day now"!

CHARLES GOOD

DOUG

BITS,BYTES & PIXELS

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A BUG IN THE HORIZON RAM DISK OPERATING SYSTEM

by Charles Good

The official Horizon Ramdisk operating system is currently in version 4. While working with the Mel Nomina's Checkwriter program I discovered a situation in which version 4 (and apparently earlier versions) does not respond correctly to TI Basic or Extended Basic. I also discovered how to correct the problem from either Basic.

Single record files in VARIABLE format that are written over regularly do not behave properly on the Horizon Ramdisk. The solution is to make each variable file at least 2 records in length. If all that is needed is a one record file, than a dummy record is added at the beginning.

```
100 INPUT "INPUT SOMETHING ":IN$
110 OPEN #1:"DSK1.TESTFILE"
120 PRINT #1:IN$
130 CLOSE #1
140 OPEN #2:"DSK1.TESTFILE"
150 INPUT #2:OUT$
160 PRINT "THE SINGLE RECORD IN THE TEST FILE IS ";OUT$
```

If you run the above program once, it creates a 2 sector file (one file description sector, and one sector to store the record) in DISPLAY,VARIABLE 80 format. If you run the program several times in succession, the file should stay at two sectors, since you are only overwriting the original file with new data each time you run the program. If the file is on a floppy, it stays at 2 sectors. Furthermore, the file contents can be read with TI-Writer at any time.

If you run the above program and put TESTFILE on the Horizon Ramdisk, the program seems to work properly from BASIC when run several consecutive times. However, each time the program is run, the length of TESTFILE increases by 1 sector, according to DM1000, although DM1000 does not indicate that total sectors used increases. Furthermore, when the program is run 2 or more times, the contents of TESTFILE cannot be read with TI-Writer. TI-Writer locks up. This seems to be a case in which the ramdisk doesn't act like a floppy. This problem occurs with single record DISPLAY VARIABLE or INTERNAL VARIABLE files of any length. There seems to be no problem with FIXED length single record files.

The above program will run properly on the Horizon Ramdisk, remaining at 2 sectors length and always readable with TI-Writer, if TESTFILE is always 2 records. This can be done by changing lines 130 and 150 and adding lines 135 and 155 as follows:

```
130 PRINT #1:""
135 PRINT #1:IN$
150 INPUT #2:DUMMY$
155 INPUT #2:OUT$
```

This creates a dummy null string as the first file record. This null string then has to be read out (line 150) before the program reads the actual data (line 155) for screen display.

DONE

"ON ERROR" ERROR IN 100

That's right folks, we goofed in the listing of CHECK WRITER published in our February issue. In line 100 the line number referred to immediately after the ON ERROR statement should be line 3090 instead of 2720. The correct line 100 should read 100 ON BREAK NEXT :: ON ERROR 3090.

An improved version of CHECK WRITER will be published next month.

DONE

PRICES & INFO ON THE TRITON TURBO XT

The Lima User Group has received information in the mail from TRITON concerning pricing and cable configurations for their TURBO XT computer that hooks up to the 99/4a console. The information is dated 1/19, 1/21, and 2/3. What follows is taken from TRITON's mailing.

Model A--256K computer, 1 floppy drive,
floppy controler, parallel printer
card, color graphics card (RGB/Composite),
bridge box to hook to 99/4A---------- $499 + $19
384 memory addition to model A----------$ 89
Second floppy drive----------$ 99
300/1200 baud modem card with software-------$169
System support software package----------$ 69.95
Warranty extention to 3 years----------$ 99.95
Serial or parallel printer cable---------- $ 19.95
Multifunction card (clock/calendar, serial
and parallel port, game port)----------$119
20 Meg hard disk card----------$499

Other models of the TURBO XT are available with an IBM style keyboard. These models are 512K and do not need to be hooked to the 99/4A console. Prices range from $549-$618 depending upon configuration.

The accompanying diagram shows how the model A is hooked up to the 99/4A console.

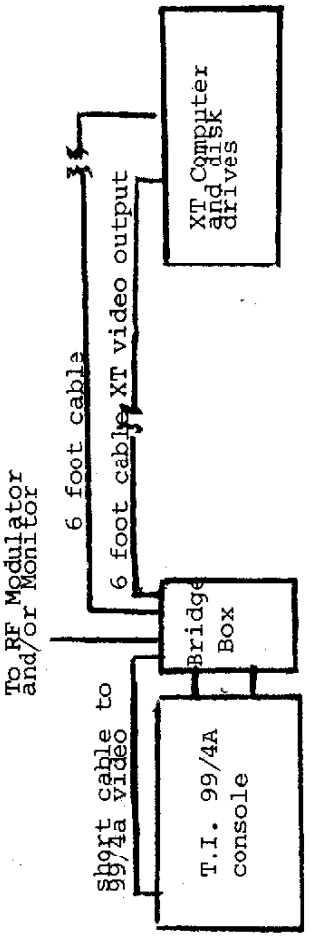
1. The Bridge box can be plugged into the 99/4a before or after the Speech Syn. or any other peripherals such as a stand alone 32K memory or RS232.
2. The TI peripheral expansion box can be plugged into th side of the bridge box. This allows the 4A owner complete access to all of his current PEB cards and disk drives in 4A MODE (but ONLY in 4A mode).
3. Three cables come with the bridge box; 1 short cable to hook up the 4A video and 2 six foot cables to hook up the XT keyboard and XT video. With these long XT cables it is possible to place the XT computer down alongside your desk (on the floor).

This bit of info isn't from TRITON's mailing, it is based on a phone call to their 800 number. You CAN'T hook your printer up to the PE Box and the XT computer at the same time. To do this you have to buy a switch box to switch the printer back and forth between the two computers. TRITON doesn't sell such a box.

next column

OHIO

CABLE CONNECTIONS
BETWEEN 99/4a AND
TRITON TURBO XT


XT Computer and disk drives
6 foot cable XT video output
6 foot cable
To RF Modulator and/or Monitor
Bridge Box
short cable to 99/4a video
T.I. 99/4A console

DONE

A CHEAP ALTERNATIVE TO THE TRITON XT

The recently released Winter/Spring 87 TENEX catalog describes an IBM clone (the "Bondwell X'Press 16") with features that appear very similar to the Triton XT model A. You get a 256K (expandable to 640K) computer with composite and RGB video output, one drive, parallel printer port, and an IBM style keyboard. The TENEX computer is bundled with MS-DOS and BASIC and sells for $469. This is almost $100 less than the TRITON XT model A with software, and with the TRITON model A you don't get an IBM keyboard.

DONE

AT CALVARY

Here is a little music program by two of our own members, Ryan D. and Ryan J Waltz. It plays an old hymn.

```
100 CALL CLEAR
100 CALL SCREEN(12)
260 CALL COLOR(2,7,7)
270 PRINT "          ""At Calv
ary"""
340 PRINT "           ********
**": :
420 PRINT "            PROGRAM
"
500 PRINT "            BY::":
:
580 PRINT "           ********
**": : : : :
590 PRINT "           ********
**": :
600 PRINT "            RYAN D
 &"
610 PRINT "            RYAN J
"
620 PRINT "            WALTZ":
 :
630 PRINT "           ********
**"
660 FOR Q=1 TO 2000
740 NEXT Q
820 CALL CLEAR
900 CALL SCREEN(6)
980 CALL COLOR(2,2,2)
1060 CALL VCHAR(24,15,42,24)
1140 CALL HCHAR(24,13,42,7)
1220 CALL HCHAR(8,11,42,11)
1300 A=440
1380 B=494
1460 C=523
1540 D=587
1620 E=659
1700 F=698
1780 G=784
1860 HC=1047
1940 GS=831
2020 T=500
2100 V=5
2180 HA=880
2260 HD=1175
2340 HB=988
2420 GS=831
2500 BF=932
```

```
2580 GOSUB 5940
2660 CALL SOUND(T,G,V,E,V)
2740 CALL SOUND(T,F,V,HA,V)
2820 CALL SOUND(T*2,E,V,G,V)
2900 CALL SOUND(T*1.5,F,V,HB
,V)
2980 CALL SOUND(T*.5,F,V,HB,
V)
3060 CALL SOUND(T*.75,F,V,HB
,V)
3140 CALL SOUND(T*.25,F,V,HA
,V)
3220 CALL SOUND(T*.75,E,V,G,
V)
3300 CALL SOUND(T*.25,D,V,F,
V)
3380 CALL SOUND(T,C,V,E,V)
3460 CALL SOUND(T,F,V,HA,V)
3540 CALL SOUND(T*2,E,V,G,V)
3620 GOSUB 5940
3700 CALL SOUND(T,E,V,G,V)
3780 CALL SOUND(T,F,V,HA,V)
3860 CALL SOUND(T,E,V,G,V)
3940 CALL SOUND(T,G,V,HC,V)
4020 GOSUB 7060
4100 CALL SOUND(T*4,E,V,HC,V
)
4180 GOSUB 6500
4260 CALL SOUND(T,F,V,A,V)
4340 CALL SOUND(T,E,V,G,V)
4420 CALL SOUND(T*2,E,V,G,V)
4500 CALL SOUND(T*1.5,F,V,D,
V)
4580 CALL SOUND(T*.5,F,V,A,V
)
4660 CALL SOUND(T*.75,F,V,HB
,V)
4740 CALL SOUND(T*.25,F,V,A,
V)
4820 CALL SOUND(T*.75,F,V,HB
,V)
4900 CALL SOUND(T*.25,F,V,A,
V)
4980 CALL SOUND(T,E,V,G,V)
5060 CALL SOUND(T,E,V,HC,V)
5140 CALL SOUND(T,HC,V)
5220 CALL SOUND(T,BF,V)
5300 GOSUB 6500
5380 CALL SOUND(T,F,V,A,V)
5460 CALL SOUND(T,E,V,G,V)
5540 CALL SOUND(T,E,V,G,V)
5620 CALL SOUND(T,G,V,HC,V)
5700 GOSUB 7060
```

next page

```
5780 CALL SOUND(T*4,E,V,HC,V
)
5860 END
5940 CALL SOUND(T*1.5,G,V,E,
V)
6020 CALL SOUND(T*.5,G,V,E,V
)
6100 CALL SOUND(T*.75,G,V,E,
V)
6180 CALL SOUND(T*.25,D,V,F,
V)
6260 CALL SOUND(T*.75,C,V,E,
V)
6340 CALL SOUND(T*.25,D,V,F,
V)
6420 RETURN
6500 CALL SOUND(T*1.5,A,V,HC
,V)
6580 CALL SOUND(T*.5,GS,V,HB
,V)
6660 CALL SOUND(T*.75,A,V,HC
,V)
6740 CALL SOUND(T*.5,GS,V,HB
,V)
6820 CALL SOUND(T*.75,A,V,HC
,V)
6900 CALL SOUND(T*.25,F,V,A,
V)
6980 RETURN
7060 CALL SOUND(T*2,F,V,HD,V
)
7140 CALL SOUND(T*2,F,V,HB,V
)
7220 RETURN
```

DONE

ANOTHER CHEAP ALTERNATIVE TO THE TRITON XT-- THE TRITON XT-PC

As this newsletter was being prepared (March 6), we received a color advertisment in the mail from TRITON describing their XT IBM clone in the version with an IBM style keyboard instead of a bridge box 99/4A connection. The advertisment says you can get one of these with 512K RAM and otherwise identical to the Model A version for exactly the same price as the Model A ($499 for the computer and $69 for support software package). Why buy the Model A with the bridge box when for the same money you can get twice the memory and a nice IBM style keyboard? This pricing structure seems strange. To paraphrase the editors of MICROPENDIUM, if you want an IBM clone (and are willing to pay big bucks for software) than buy an IBM clone! The 99/4A keyboard is not a good substitute for an IBM keyboard.

DONE

DOUBLE OR QUAD DENSITY WITH A TI DISK CONTROLER

You can pruchase a DOUBLE density Myarc or Cor-Comp disk controler card for the PE Box for about $150, or you can have Ryte Data modify your existing TI card to double and QUADROUPLE density for much less. According to the November 86 issue of the Ryte Data newsletter, they will sell you the necessary chips for $45(U.S.) , or you can send them your disk controler and they will install the chips $45 + $10 (U.S.) labor and postage. You ship your TI card to them via parcel post, UPS, or Purolator with your payment, and they will get it back in the mail to you within 48 hours of receipt. This should work with your existing TI or other single sided or double sided drives and allow you to store twice or four times the data on a disk side compared with single sided format. To use quad density, you need high quality disks. This looks like a good deal to me.

RYTE DATA
210 MOUNTAIN STREET
HALIBURTON ONTARIO K0M 1S0
CANADA
705-457-2774

DONE

FOR SALE: Commodore 64 computer, 1541 disk drive, lots of software, and several books. ALL FOR ONLY $175 This is a great price! Call Hal Sehnert at 419-991-4521

OVERLAY STRIPS

The following page contains several overlay strips created with OVERLAY STRIP DESIGNER. This is program H215 in the group library. You can cut any of these out (closely) and slip it in the overlay strip holder above the number keys on the console. Or, you can cut out a group of them and use celophane tape to tape them to the console immediately above the overlay strip holder. For example, you could leave the original TI BASIC overlay strip in the holder and cut out the TI-Writer, Multiplan, and E/A strips together as a single unit. These can then be taped to the console above the original BASIC overlay strip.

next page

DELETE	INSERT	ERASE	ROLL ↑	BEGIN	ROLL ↓	AID	REDO	BACK	DUMP	ASCII/HEX	ADVANCED DIAGS.
SINGLE EXEC. WINDOW C/G//	CONTINUOUS WINDOW SIZE	PROG/STATUS INST. SIZE	EN/DIS-ABLE PAGE ↑	SOUND OFF SEARCH	PAGE ↓	OPTIONS	REGISTERS	SAVE OPTIONS FIELDS/MEM	BIAS ON/OFF	QUIT ASCII/HEX	MG EXPLORER
WINDOW C/G/V	MOVE	FILL	PAGE ↑	SEARCH	PAGE ↓	COLOR	JUMP	BACK	BIAS ON/OFF	QUIT ASCII/HEX	GRAM KRACKER
DELETE		ERASE	CLEAR	BEGIN	PROCEED	PAUSE		BACK		QUIT	T.I. LOGO II
RESTART		CANCEL	LOG ON	LOG OFF	TRANSFER					QUIT	TE 1200
DELETE CHAR	INSERT CHAR	ERASE LINE	FORWARD SCR	TAB →	BACK SCR	BUFFER IN	INSERT LINE BUFFER OUT	ESCAPE		QUIT	TI FORTH
SLOWER	FASTER	DRAW TOGGLE	ERASE TOGGLE	NO HELP	ZOOM TOGGLE	COLOR MENU	LINE MODE	CIRCLE MODE	COPY MENU	MAIN MENU	GRAPHX
MODEM BAUD DELETE	SPOOL TOGGLE ^T	MODEM PARITY ^N	MODEM PORT BREAK	PRNTR PARITY WINDOW →	PRNTR PORT ^E	PRNTR BAUD FORE COLOR	BACK COLOR		40/80 TOGGLE PAGE TOGGLE	QUIT QUIT	FAST TERM
A→CLEAR I. N→SWAP	B→CLEAR C. O→CIRCLE	C→INPUT D. P→POINT	D→DRAW Q→DISC	E→ALPHA N. R→RAYS	F→FILL S→STORE	H→H OR V V→FRAME	I→INVERT X→BOX	K→K-LINE Z→ZOOM	L→LINE FCTN .→PEN	M→MIRROR FCTN ;→SPEED	TI ARTIST
SPEAK ^G→BELL	OUTPUT ^H→BACKSPACE	CANCEL ^J→LINEFEED	TRANSFER ^L→FORM FEED	WRAP TOGGLE ^.→ESCAPE	CASE TOGGLE ^/→BREAK	PAGE ^Q→X-ON	^S→X-OFF		EXIT FCN V→DELETE	QUIT	TE-II
DELETE CHAR DELETE	INSERT CHAR INSERT	ERASE LINE ERASE	ROLL UP↑ BREAK	NEXT WINDOW→ BEGIN	ROLL DOWN↓ PROCEED	TAB AID	INSERT LINE REDO	ESCAPE BACK		QUIT QUIT	EDITOR ASSEMBLER
HOME LOWER RIGHT	TAB	NXT UNL CELL	FORWARD CHAR BACK CHAR	FORWARD WORD BACK WORD	CHNGE WINDOW	REL/ABS REF HELP	RECALL	BACKSPACE	DEL FORWARD	CANCEL	MULTI PLAN
OOPS! DELETE CHAR	REFORMAT INSERT CHAR	SCREEN COLOR DELETE LINE	NEXT PARAGRH ROLL DOWN ↓	DUPE LINE NEXT WINDOW→	LAST PARAGRH ROLL UP ↑	WORD TAB TAB	NEW PARAGRH INSERT LINE	NEW PAGE COMMAND/ESC	WORD WRAP LINE NUMBERS	QUIT	TI WRITER
DELETE	INSERT	ERASE	BREAK	BEGIN	PROCEED	AID	REDO	BACK		QUIT	BASIC